the final report. Particularly where there is a possibility that objectives other than the usual economic efficiency criterion may be pertinent in the judgment of any interest concerned, there should be consideration and presentation of alternatives in reports."

Many conservation organizations reacted to President Johnson's plea that the Potomac be made a model river by soliciting the advice of hydrologists, engineers, agronomists, silviculturists, economists and others. Our effort was to effect programs that would yield an adequate amount of clean water, provided quality recreation, and preserve scenic beauty.

The major thrust of our efforts has been in the use of the estuary for fresh water for Washington, recycling of water when used for cooling, the acceleration of sewage treatment facilities, and an acceleration of soil conservation practices to reduce silt contamination. It was our hope to rely on these devices that would be less costly and have greater compatability with our resource uses.

The seven projects proposed by the Corps of Engineers in accordance with their calculations, if authorized, would cost $131,780,000, require 20,050 acres of land for the projects alone, and an additional 28,110 acres for purposes of recreation and fish and wildlife mitigation. In addition, it would displace upwards of 325 families, remove over 6,475 acres from agriculture, cause to be built or relocated 20.2 miles of public roads and/or highways, the building or reconstruction of six bridges, the removal of two schools, the removal of two churches, and the re-location of six cemeteries. The enormous burden of proof for these projects appears far too formidable in terms of the benefits received, especially without any analysis or consideration, of which the public is informed, as to the effectiveness of alternatives.[1]

We have been intrigued for a number of years at the manner in which the Corps analyzes the economic aspects of recreation. Perhaps I may appear overly concerned, since I suffer from my own background as a professional economist. The generalizations relative to recreation and fish and wildlife fall almost by their own weight. The calculation of recreation benefits is inevitably analyzed on the basis of user days only. In short, a projected classification of the total number of visitors which one may expect after the construction of the reservoir. These projection statistics do not indicate the length at which the user days will prevail. Also, we should hasten to point out that the word "projection" is somewhat misleading and perhaps economists have oversold this concept, for too many think of it as a prediction. Projections are made on the assumption of the relationship and magnitude of certain variables. This may be accomplished by analyzing the present relationships and projecting them into the future. It also may be accomplished by assuming a certain magnitude due to changes, which seems most probable to result from a particular act. It is true that predictions may be based on such projections but predictions and projections are not the same thing.

It is difficult to analyze completely how the Corps arrives at the classification of recreation. Apparently it is assumed in the first instance that the phenomenon of recreation is apparently homogeneous. Or if not homogeneous, sufficiently compatible that all will benefit or lose as a result of something taking place or not taking place. If a reservoir is constructed, presumably all recreation users benefit. If it is not constructed, presumably all recreation users are deprived.

Recreation is not homogeneous and planners with an eye to more than just a particular river basin have to take this into account, if they are to serve, as they contend they are doing, the recreation needs for people from a wide area with varying preferences. Some people like to water-ski. Other people prefer to canoe down an unobstructed stream. In short, there is never any effort to make qualitative determinations. Neither is there an effort on the part of the Corps to judge the availability of particular types of recreation in a general area, in order that their final planning will be fused into an over-all balance that is required by the area in general.

My own efforts to come to some reasonable conclusions, as to the manner in which the Corps makes these calculations with such accuracy and profundity, is to request what value is given to different qualities and preferences in the computation of the recreation being displaced. Also to question whether recreation being displaced is in shorter or greater supply in the general area than that being offered by the reservoir construction. What impact on scenic and esthetic resources will a reservoir add rather than detract from the scenery as it now exists? How are these values assessed? Apparently none of these factors is taken

[1] Fosdick, Ellery, "Financial Feasibility and Drawdowns of Reservoir Projects," copy attached.